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09/736,349	12/14/2000	Elizabeth Adleberg Brodsky	AUS920000510US1	8921
47959	7590	09/07/2006	EXAMINER	
IBM CORP. (AVE) C/O LAW OFFICE OF ANTHONY ENGLAND PO BOX 5307 AUSTIN, TX 78763-5307			BARQADLE, YASIN M	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/736,349

Applicant(s)

BRODSKY ET AL.

Examiner

Yasin M. Barqadle

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,15 and 23 is/are allowed.
- 6) ☐ Claim(s) 1-3,5,6,9-11,13,14,17-19,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 4,12 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**Response to Amendment**

1. In view of the Appeal Brief filed on March 01, 2006, **PROSECUTION IS HEREBY REOPENED**. A new ground of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

- Claims 1-7, 9-15, and 17-23 are pending.
- Claims 8, 16, and 24 have been previously cancelled.

***Allowable Subject Matter***

2. Claims 4, 12, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7, 15 and 23 are allowed.

### Response to Arguments

3. In pages 7-10 of the remarks, the Applicants mainly argues that Najork does not teach "determining a reference for the next page by the browser executing the reference and sending the address to the crawler." Examiner notes that Najork teaches *"The web crawler thread determines the URL of the next document to be downloaded (step 160), typically by retrieving it from a queue data structure (not shown)." (Najork, col. 4, lines 59-62). Najork further teaches, "The thread then downloads the document corresponding to the URL, and processes the document (162). That processing may include indexing the words in the document so as to make the document accessible via a search engine. However, the only processing of the document that is relevant to the present discussion is that the main procedure identifies URL's in the downloaded document that are candidates for downloading and processing (step 162). Typically, these URL's are found in hypertext links in the document being processed." (Najork, col. 4, line 62 – col. 5, line 4). Najork also teaches threads 130 in web crawler 102 as shown in fig. 1. "a main web crawler procedure 140 executed by each of the threads 130; and a URL processing procedure 142 executed by each of the threads 130 to process the URL's identified in a downloaded web page." Therefore, Najork clearly teaches identifying a reference (URL) for the next page to be downloaded by executing thread 130 located in the web crawler col. 3, lines 52-58. As for the reference being specified by script Kredo teaches this limitation as shown in the office action. Therefore, the combined references of Najork and Kredo teach the claimed limitation in claims 1.*

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2153

4. Claims 1, 9, 10, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork et al. (U.S. Patent Number 6,301,614, hereinafter "Najork") in view of Kredo et al. (U.S. Patent Number 6,449,636, hereinafter "Kredo")

In referring to claim 1, Najork shows substantial features of the claimed invention, including:

Querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser: *"The thread then downloads the document corresponding to the URL, and processes the document (162).. That processing may include indexing the words in the document so as to make the document accessible via a search engine. However, the only processing of the document that is relevant to the present discussion is that the main procedure identifies URL's in the downloaded document that are candidates for downloading and processing (step 162). Typically, these URL's are found in hypertext links in the document being processed."* (Najork, col. 4, line 62 – col. 5, line 4)

- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*"The web crawler thread determines the URL of the next document to be downloaded (step 160), typically by retrieving it from a queue data structure (not shown)."* (Najork, col. 4, lines 59-62)

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo

In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: *" The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page.*

Art Unit: 2153

*Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result. "* (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26)

Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

In referring to claim 9, Najork shows substantial features of the claimed invention, including:

- First instructions for querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; second instructions for parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser: *Najork, col. 4, line 62 – col. 5, line 4* (see full quote above)

- Third instructions for determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*Najork, col. 4, lines 59-62* (see full quote above)

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo

In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: " *The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a*

Art Unit: 2153

*part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result. " (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26) Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].*

In referring to claim 17, Najork shows substantial features of the claimed invention, including:

- A processor connected a network:  
Najork, Fig. 1 shows a processor 106 connected to a network 110
- A storage device connected to the processor and the network; the storage device is for storing a program for controlling the processor:

Najork, Fig. 1 shows a storage device 118 storing web crawler program 140

- Querying a web site server by the crawler, wherein at least one page of the web site has a reference for executing by the browser to produce an address for a next page; parsing such a reference from one of the web pages and sending the reference to an applet running in the browser:

*Najork, col. 4, line 62 – col. 5, line 4 (see full quote above)*

- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*Najork, col. 4, lines 59-62 (see full quote above)*

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo

In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: "*The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result.*" (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26)

Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

5. Claims 2, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo and in further view of Albert et al. (U.S. Patent Number 6,735,169, hereinafter "Albert"). Although Najork in view of Kredo shows substantial features of the claimed invention, Najork in view of Kredo does not show a resolver file indicating the IP address of a proxy server as the address of the web site. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredo as



Art Unit: 2153

evidenced by Albert.

In analogous art, Albert discloses cascading multiple services on a *forwarding* agent. Albert, Fig. 3A shows a client **304** sees proxy **302** as the web site 310

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo so as to use resolver file indicating the IP address of a proxy server as the address of the web site, such as taught by Albert, in order to provide load balancing for the web site.

6. Claims 5-6, 13-14, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo and in further view of Challenger et al. (U.S. Patent Number 6,026,413, hereinafter "Challenger").

In referring to claims 5, 13, and 21, although Najork in view of Kredo shows substantial features of the claimed invention, including the method and apparatus of claims 1, 9, and 17 (see 103 rejections above), Najork in view of Kredo does not show caching dynamically generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredo as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. 1C shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

In referring to claims 6, 14, and 22, Najork in view of Kredo and in further view of Challenger shows,

- The system of claims 5, 13, and 21 (see 103 rejection above)

Art Unit: 2153

- At least a first such server generated web page has included in it an operation that would cause the server to dynamically generate a second web page if the first page were used to generate further requests to the server, and removing the operation from the first server generated web page and replacing the operation with a reference to a version of another of the server generated web pages:

Challenger, Fig. IC shows the caching of dynamically generated web pages and their dependencies. Said dependencies used to replace the original references to web pages.

7. Claims 3, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo in further view of Albert and in further view of Yoshida et al. (U.S. Patent Number 6,748,418, hereinafter "Yoshida"). Although Najork in view of Kredo in further view of Albert shows substantial features of the claimed invention, including the system of claims 11 and 19 (see 102 rejection above), Najork in view of Kredo in further view of Albert does not show adding an onload attribute to one of the web pages by the proxy. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredo in further view of Albert as evidenced by Yoshida.

In analogous art, Yoshida discloses a technique for permitting collaboration between web browsers and adding content to HTTP messages bound for web browsers. Yoshida shows adding an onload attribute to one of the web pages by the proxy:

*"The HTTP message editor 123 specifies the script or help HTML to be displayed by referring to the help DB 151 and the script DB 1 53 based on the HTTP message delivered by 15 the HTTP message checker 125 and the. rank and inserts the following program written in JavaScript into the HTTP message.*

```
function openScript(url) {  
    window. open (url, "help_ window");  
}  
<body onLoad="openScript (\\"High_Level_Script.html\\" ">  
</body>"(Yoshida, col. 10, lines 52-64)
```

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo in further view

Art Unit: 2153

of Albert so as to add an onload attribute to one of the web pages a proxy, such as taught by Yoshida, in order to allow the web crawler to know when the page is fully loaded.

### Conclusion

8. The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

Art Unit 2153

  
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